

**Executive Summary**  
**Department of Veterans Affairs**

**Prosthetic Fitting – how do we ensure proper fitting and adjustments?**

**Issues**

- I. One of the major injuries seen as a result of Operation Iraqi Freedom Enduring Freedom (OIFEF) is traumatic amputation. Amputations include foot, below-knee, above-knee, hand, below-elbow and above elbow. Approximately 20% of the amputees returning from OIFEF have experienced amputation of more than one limb.
- II. Blast injuries often cause damage to the residual limb, loss of function in the contralateral limb and other injuries that affect outcomes. Rehabilitation goals vary from daily activities and employment to return to service. These factors must be considered when determining which prosthesis is appropriate for your patient. (see prosthetic prescription white paper).
- III. Another important factor in determining which prosthesis is appropriate for your patient is ability to comply with the upkeep, maintenance, fitting and adjustment schedules necessary to maximize function of the prosthesis. Several amputees returning from OIFEF have expressed interest in returning to previous activity levels. With the advent of today's technology, this is a reality. But, is it for everyone under all conditions? Does the upkeep and maintenance of today's prostheses preclude some patients from taking full advantage of current technology?
- IV. In order to address these issues within Medical Treatment Facilities (MTFs) such as Walter Reed Army Medical Center (WRAMC) and carry out appropriate care in VA, we must develop short- and long-term plans of action to properly prescribe and maintain prostheses.

**Background**

- I. On May 3, 2004 the number of returning soldiers entering MTFs reached 12,932. Of these returning soldiers over 120 are major limb amputees. Although the majority of amputees are below-knee single amputees, many have lost multiple limbs and/or suffered multiple injuries. In an effort to provide best care to all returning soldiers, all lower-limb amputees receive a C-Leg with a microprocessor knee, Mauch SNS knee, and shower leg. All upper-limb amputees receive a conventional system, an external powered or electric system and a passive cosmetic system with multiple terminal devices. Without a systematic plan for adjusting, upkeep and maintenance of these systems under active duty and civilian conditions, these men and women face unnecessary barriers to function and infringements upon their quality of life.
- II. Presently, WRAMC address adjustment, maintenance and upkeep issues through centralized in-house care. The vast majority of returning soldiers remain at WRAMC through initial prosthetic fitting and adjustment stages. Access to resources and centralization of care ensure that soldiers receive best care upon their return. However, if a soldier wishes to return to active duty, adjustments, upkeep and maintenance will be handled through their local MTFs, which may not be able to provide comparable services. Reliance on local private facilities may be essential that may or may not have

the skill set to perform maintenance, adjustments, or have certifications required by manufacturers to provide services for advanced systems.

If a soldier is not able to return to active duty or chooses medical discharge and becomes a veteran, upkeep and maintenance become the responsibility of VA. This may also pose a potential problem, as many VAs do not have staff to provide such services. Existing staff may not be ABC or BOC certified and additionally trained to work with advanced systems such as microprocessor knees. Again, reliance on local private facilities may be necessary. Again, utilization of private facilities may pose problems. For example, pre-authorization can produce a lag of time in delivery of services. Private practitioners can be reluctant to make modifications to another facilities work and often request replacement components versus making modifications. This too, can delay services.

### **Discussion and Recommendations:**

- I. It is time to take a systematic approach to the upkeep and maintenance of advanced prosthetic technologies under mobile military and outsourced VHA conditions. How fitting, adjustments, upkeep and maintenance issues are handled within VA must be addressed. Suggestions for the determination of best methods include: (1) standardization of documentation and tracking methods, (2) standardized protocols for replacements, adjustments and repairs (3) additional training for MTF and VA practitioners and (4) development of joint MTF/VA activities
- II. Recommendations to start these processes may include: (1) the formation of a qualified multidisciplinary DoD, VA and private practice task force, (2) formation of a national DoD/VA/private practice network, (3) formation of an exemplary standardized training and service program carried out within the DoD/VA/private practice network, (4) qualified, impartial task force charged with examination of componentry through examination of research and research literature and (5) highly qualified, impartial, oversight committee separate from the task force